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# ARCHITECTURE SYMBIOSIS

-A Study Of Cultural Synthesis-  
Urban Design Proposal for Boston Chinatown

By

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**HSUYUAN KUO**

Submitted to the Department of Architecture on May 12, 1997 in partial fulfillment of the requirements for the degree of Master of Science in Architectural Studies.

## **ABSTRACT**

The present thesis will focus on the role of culture in architecture and urbanism. The new environment should represent the identity of its inhabitants and the coherence of existing urban context. Architecture and urban setting will play the role of mediator in order to achieve the cultural synthesis of the built environment.

Boston Chinatown is the fourth largest Chinese neighborhood in the United States. This unique community represents part of Boston's rich and culturally and ethnically diverse neighborhoods. For most of the Asian community in the greater Boston area, Boston Chinatown serves as the prominent center of economic, social and cultural activity. Situated in the center of Boston, many proposals have been made the revitalization of Boston Chinatown. However, these previous proposals only responded to the physical problems and focused on partial development guideline, neglecting the importance of cultural issues as well as the relationship between Chinatown and the rest of the city.

Three issues are of primary importance in the design process of this thesis: 1) investigation and analysis of the existing urban context in a city scale to study Chinatown in its strategic location within Boston, 2) utilization of the Chinese urban design principles as a tool to define the identity for Chinatown's habitants, 3) the synthesis between Chinese design principles and western urban context.

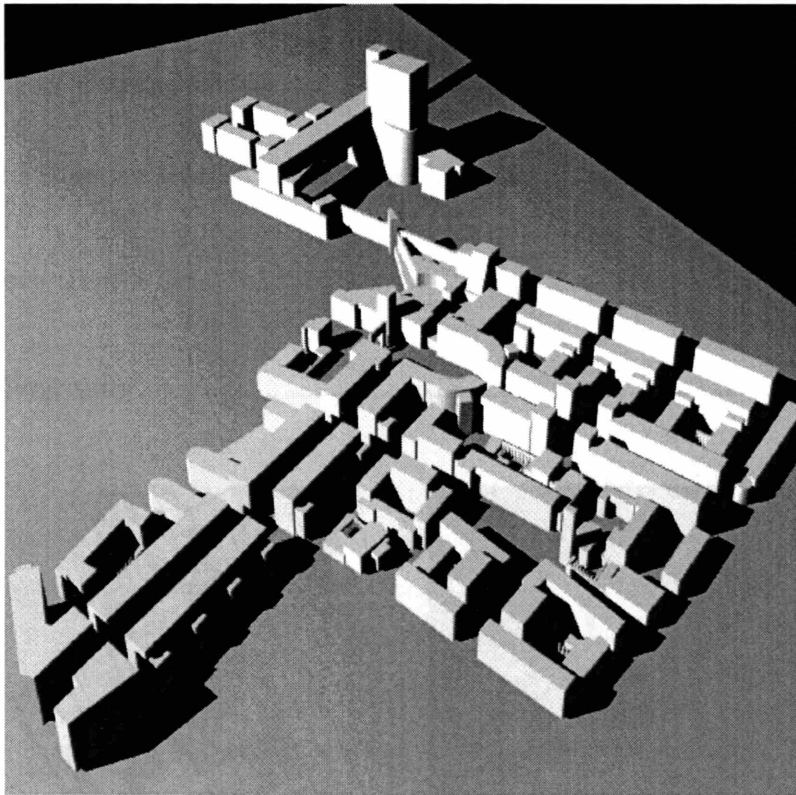
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Professor of Architecture

*For my parents, Effie and all my friends at MIT.*

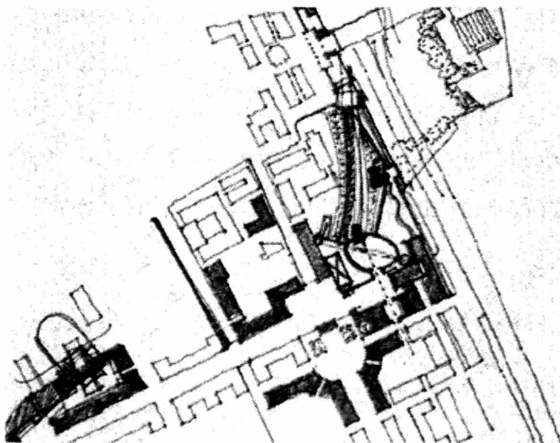




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## 1.0 Introduction

Through time and space, under various civilizations and cultures, the built environments not only reflect their life-styles and customs, but also delineate different social and political contexts. Therefore, culture is a significant component that embodies all kinds of human activities within the city, and represent the identity of the people in which they belonged.

However, pervaded by mass media, marketing and information, and the phenomena of globalization, the distinction between cultures is getting obscure in modern society. The question is how to become "modern" in a way and to search for the original value at the same time; how to revive an old, dormant civilization and participate in the universal civilization. Besides, it is still a crucial dilemma in most parts of the so-call Third World.<sup>1</sup> Facing today's situation, most of them are struggling in many fields, and searching for the answer on "identity".

Philosopher Paul Ricoeur has addressed in his thesis that a hybrid "world culture" will only succeed through a cross-fertilization between rooted culture on the one hand and universal civilization on the other<sup>2</sup>. Since architecture is a cultural artifact, its stylistic expression is not the outcome of a written covenant made in a few days;

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1. Paul Ricoeur, "Universal Civilization and National Cultures" (1961), in History and Truth, trans. Chas. A. Kelbey, Evanston, 1965. 276-7
  2. Frampton, Kenneth, "Prospects for a critical regionalism", Perspecta: The Yale Architectural Journal 20 (1983): 147

instead it is nurtured through time and space. Architecture has thus become the most important indicator in the discussion of cultural issues. Therefore, this thesis attempts to investigate the interaction of the different cultures in the field of architecture and urbanism.



*FIGURE 1.1 The aerial view of Boston Chinatown*

Boston Chinatown is the fourth largest Chinese neighborhood in the United States.(Fig.1.1) Its surroundings have a strong environmental impact to the rest of the city, culturally, socially, economically and ethnically. One could say this is a city within a city or a culture within a culture. Like other Chinatown, Boston Chinatown is a typical example of isolated communities driven by cultural conflicts. Statistics shows that 66% of the community population are first generation<sup>1</sup> Chinese who, more or less, have difficulties in understanding English. On the one hand,

they hope to maintain their Chinese custom and life-style. On the other hand, the dominant presence of a foreign environment urges them to make necessary adjustments to a new way of life. Many of them suffer from the feeling of being lost in what they think of as a "strange" environment. As a result, they can only group themselves together and stay within the boundary of Chinatown, which in the end diminish their opportunity to pursue a better life as the rest of the Bostonian.

One might easily observe that the physical environment of Chinatown is not desirable for its Chinese inhabitants. Firstly, this is the place that fail to promote a strong sense of belonging, although it may vaguely remind Chinese immigrants of their hometowns. Secondly, it is also a place of ambiguous characters and complexity due to the cultural interactions.(Fig.1.2) The physical environment that is partly American and partly Chinese not yet communicate well with its users, and thus lacks its identity.

My strategy for the redesign of Boston Chinatown is to create an environment which can represent different cultures. It is an attempt to revive the Chinese identity and enhance the value of the Chinese culture so that Chinese immigrants can gain a sense of pride and confidence in the new environment. Architecture and urban setting will play the role of mediator where people can share information and communicate. The design process will take a variety of approaches to explore the design idea in the field of architecture and urban studies, approaches



*FIGURE 1.2 The elevation of Chinatown show the ambiguous characters of cultural interactions*

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1. BRA, *Chinatown Community Plan: A Plan to Manage Growth*.(1990) 27

that emphasize the cultural and conceptual aspect of space.

It is also a necessity to state the scope of this investigation. Firstly, Boston Chinatown is composed by three major districts - the historical, commercial and residential Chinatown. In order to put Chinatown into a city scale, the study will focus on the extension of the residential Chinatown as well as the innovation of the Chinatown Gateway site and the Turnpike Air Right Study area, which will create and make a new statement to that the city as a whole. Secondly, the design process will be based on the research on Chinese urban design principles and the context of Boston Chinatown. Therefore, the main concern is how the Chinese urban design principles can apply into the context of Boston Chinatown. Finally, through the investigation of physical and conceptual dimension; these aspirations are attained by improving the coherence of the urban context of Boston Chinatown and identity of its residence at the same time; and toward a new environment of cultural synthesis.

## 2.0 The Situations of Boston Chinatown

### 2.1 Neighborhood History

Situated in the south - eastern part of Boston, Chinatown for over one century has been hiding in the shadow and sometimes even becomes a victim of the growth of the city.

Chinatown is located in the South Cove area (Fig.2.1), a neighborhood that grew on land created by the filling of tidal flats in the early 19th century. The purpose of the filling of the flats was to establish more residential area for the population growth. There were two major neighborhoods originated, Bay Village and South Cove on the either side of the Washington Street. Over the years, while Bay Village stayed with the proper scale and character of the original neighborhood, South Cove was less fortunate. With the completion of the Boston and Albany railway in 1840 (Fig.2.2), South Cove lost its attraction to the native Americans and middle class residents as a residential neighborhood. Its land value began to decline, and the original residents gradually moved out.<sup>1</sup>

Because of the low rent, South Cove had become a "haven" for new immigrants -- Irish, Italian, Jewish, Syrian and finally Chinese. It also attracted the leather and garment industries. The construction of the elevated



*FIGURE 2.1 Boston 1800. The filling of the flats in 19th century.*

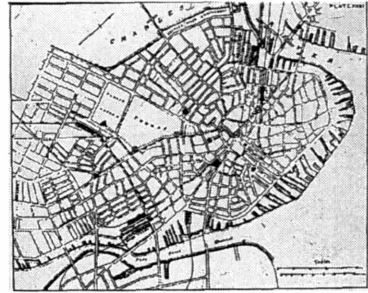


*FIGURE 2.2 The completion of the railway in South Cove.*

1. The Boston 200 Corporation, Chinatown. Boston 200 Neighborhood History Series. (1986). 2.

railway along Washington Street in 1889, and the influx of garment manufacturers sped up the decline of land values.

The formation of Chinatown in South Cove started, in 1889, (fig.2.3) when the first group of Chinese, came from the West Coast as contract laborers recruited for the construction of the Pearl Street Telephone Exchange.<sup>1</sup> After that, a small but steady stream of Chinese immigrants arrived and began to settle down. By the end of the century, the whole South Cove had distinctly established as a Chinese neighborhood. According to the statistics of 1892, among 250 Chinese in Boston at least 200 lived in Chinatown.<sup>2</sup> They carried on some small businesses such as restaurants, laundry and grocery stores in this area. Some buildings were remodeled; the first and second floors altered for restaurant use. The restaurant business not only served the Chinese community but also non-Chinese. What will become a tourist industry grew out of this development.



*FIGURE 2.3. The formation of Boston Chinatown.*

1. The Boston 200 Corporation, Chinatown. Boston 200 Neighborhood History Series. (1986). 1

2. The Boston 200 Corporation, 4.



*FIGURE 2.4. Boston Chinatown -The victim to the growth of the city.*

In the 20th century, the advent of the Modern Movement changed the geographical figure of Boston Chinatown. Chinatown has become a victim to the growth of the city.(fig.2.4) In 1963, the construction of the Southeast Expressway and the Massachusetts Turnpike caused the demolition of a large number of housing units and introduced heavy traffic into the community. An even more serious result was the radical separation between the Chinese community in the South End and that in South Cove, which limited the growth of the Chinese community. Another more radical change was due to the South Cove Renewal Project in 1965. The goals of the project were to provide the expansion of the Tufts - New England Medical Center, to expand and preserve the two residential neighborhoods, Bay Village and South Cove. Yet, it resulted in the demolition of many structures and the displacement of much of the Chinese community. As the renewal progressed, Chinatown residents were forced to relocate themselves, first to the



borders of Chinatown, then to Castle Square and the South End, or to areas easily accessible by public transportation - Allston - Brighton, Brookline, Roxbury, and Dorchester. Finally, the expansion of the Tufts - New England Medical Center, and the Massachusetts Turnpike took over half of the land area of Chinatown. The project changed the scale of the area from one or three to five story row houses, to ten and twenty story housing developments and institutional buildings.

Yet, these housing could not satisfy the needs of Chinese community. While Chinatown lost half of its original land, its population had tripled since 1950<sup>1</sup>, an increasing number of immigrants arrives from Taiwan, Hong Kong and Southern Asia. For example, between 1965 and 1984, 419,373 Chinese had entered the country (almost as many as the 426,000 that came among 1849 and 1930).<sup>2</sup> The population growth inevitably brings about more and more social problems that Chinatown has to face.

## 2.2 Social condition

As the fourth largest Chinese community in the United States, Boston Chinatown is composed of two groups of people, which can be described as the “lost group” and the group searching for “identity”.

1. BRA, Chinatown Community Plan: A Plan to Manage Growth. (1990) 52
2. BRA, Chinatown Community Plan: A Plan to Manage Growth. (1990) 58.

Looking back at a century ago, the first Chinese immigrants settled along the tiny and crowded Ping On Alley. From its temporary beginning, the first generation Chinese evolved into an isolated community.<sup>1</sup> The impermanent mentality, racial discrimination as well as the language barrier caused them to become a “lost group”.

Historically, most of the Chinese that came to this country were people with a rural background. They were brought over here as a form of labor.<sup>2</sup> Their intention was to come here, earn some money then go back. With such impermanent mentality, they had no willingness to understand this new environment. As a result, the cultural background of America as well as the western philosophy were obscure to them. They never thought about putting down their roots in the United States.

Moreover, the Chinese were subject to the harshest status of restriction; the Exclusion Act of 1883, which for 60 years barred all Chinese immigrants' family from entering the country. The majority of the Chinese were living alone,<sup>3</sup> and normal family life was almost non-existent. The racial discrimination forced them to cluster together and to help each other. They all considered themselves as temporary residents and suffered because of the severe cultural and racial discrimination. There was no opportunity for them to integrate themselves into the American society.

- 
1. Boston 200 Corporation 1.
  2. Boston 200 Corporation 3.
  3. Boston 200 Corporation 6.

After World War II, the Chinese communist Party took over China and restricted travel. Boston's Chinese population finally realized that they had to stay; they could not go back to China. This was the first time they decided to put their roots down in the United States. At the same time, the relaxed immigration laws provided the opportunity for a permanent and growing Chinese community. The increased female population nurtured more family life, which enhanced their social consciousness. Thus, the Chinese in Boston turned their attention to their community and started to challenge their future in the United States.<sup>1</sup>

Language barrier is another major problem that Chinatown's immigrants often encounter.<sup>2</sup> It restricts their employment opportunities and limits their mobility as well as the communication with the new environment. Because of the language problem they can barely understand the information from television and newspapers, which limits their chance to communicate with the rest of the world. At the same time, few jobs are open to Chinese immigrants outside of Chinatown. Language obstacles force them to continue to search for jobs that do not require fluent English. Usually, these jobs are found in laundromats and restaurants inside the community. Within Chinatown, there is no need or opportunity to learn English. New immigrants find themselves locked into the same low social and economic positions. These employment limitations only intensify their situation of being a socially isolated group. As a result, most of the first generation immigrants that make up the majority of the workforce in Chinatown live in pov-

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1. Boston 200 Corporation 9.  
2. Boston 200 Corporation 15.

erty. Chinatown becomes a neighborhood of low social-economic status. Although its businesses and workforce have grown with the lasting inflow of Asian immigrants, the economic structure of Chinatown barely changes. The average family income remains low. According to the BRA's 1987 household survey, 42 percent of Chinatown households reported annual incomes below \$10,000. In comparison, the 1985 middle household incomes in the North End and the South End were \$32,000 and \$22,200 respectively.<sup>1</sup>

While the first generation suffer from their low social-economic status, their children have to face the interaction between the two cultures. This second generation of Chinese American goes to school, works, and gradually assimilates into the American society. However, new problems arise. Traditionally, the family or community elders were responsible for giving the younger generation the necessary education on cultural heritage, but it is no longer possible today. Since both parents often have to work, the family values that once characterized the Chinese way of life have faded away. Parents and youths are experiencing a generation gap. The new generation has to face the conflicts between traditional Chinese and Western values. Meanwhile, they still have to deal with the racial issues of this society. With the status of partly American and partly Chinese, they always ask the question of "Who am I?". They are searching for their "identity" in the midst of these social and cultural conflicts.<sup>2</sup>

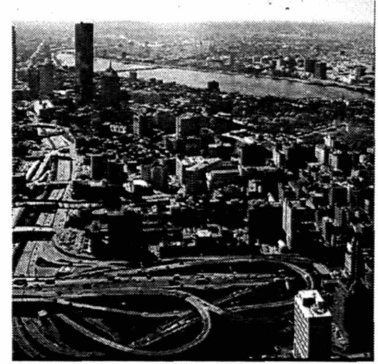
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1. BRA, Chinatown Community Plan: A Plan to Manage Growth. (1990) 28.

2. Boston 200 Corporation 15

### 2.3 Physical environment

Regarding its physical conditions, Chinatown lacks geographical unity. As described before, the construction of the major highways and the expansion of institutions took over large areas of Chinatown's neighborhood. Chinatown was isolated from the nearby city. Meanwhile, the land taking increased the insufficiency of housing supply and open space for the community.



**FIGURE 2.5** *The Chinatown is isolated by highways.*

Chinatown was cut off from the residential neighborhoods by highways, and isolated from the city's Financial District, Boston Common, and the Public Garden by the nearby Combat Zone.(fig.2.5) Since 1960, Chinatown has lost more than half of its land to roads, highways, and medical institutions. The quality of life in Chinatown deteriorates due to the presence of the Combat Zone and the increasing volume of through - traffic on the neighborhood's streets. Today, Chinatown's boundary consists of a commercial zone north of Kneeland Street to Boylston Street and a residential area south of Kneeland bordered by the Tufts/ New England Medical Center complex. Chinatown is located south of the Downtown Crossing shopping district on upper Washington Street. The Combat Zone adult entertainment area is now in decline under the pressure of both intensifying real-estate values and law-enforcement efforts. To the northeast is the Leather District, a section of older, somewhat elegant offices and warehouse buildings once viewed as a potential area for Chinatown's commercial expansion, but now is cut off by the Southeast Expressway. Currently, the buildings of the leather district were largely being renovated as upscale offices due to the inauguration of the South Station. Across

the Massachusetts Turnpike to the south of Chinatown is South End. Beside the Castle Square, the part of South End closest to Chinatown is mixed with commercial buildings, warehouses, and vacant lots, especially along the industrial corridor near the Southeast Expressway.<sup>1</sup>

As the population tripled for the past thirty years, and with half of the land lost, Chinatown has become the most congested neighborhood in Boston.(fig.2.6) Rapidly rising property values have created crisis in the neighborhood. Chinatown needs more affordable housing. In 1955, the visionary planner, Kevin Lynch, observed that the land taking for the new expressway would demolish many Chinese-occupied dwelling units and leave the community pressed for housing. And he was right, Chinatown needs decent housing and adequate recreation of space for the community.<sup>2</sup> However, due to the population growth, the cost of housing in Chinatown is relatively high. In 1980, Chinatown's average housing value was 87 percent higher than the city's average. The problems of housing supply exist not only in terms of quantity but also quality. According to a BRA survey in 1987, 25 percent of Chinatown's housing units are occupied by five or more people, 94 percent of these units have only one bedroom.<sup>3</sup> Due to the problem of overcrowding, mistreatment and long years of overuse, a large number of Chinatown's housing are dilapidated. The living environment is getting worse. Today,



*FIGURE 2.6 The most congested neighborhood in Boston.*

1. BRA, *Chinatown Community Plan: A Plan to Manage Growth* (1990) 62.
2. BRA, *Chinatown Community Plan: A Plan to Manage Growth* (1990) 59
3. BRA, *Chinatown Community Plan: A Plan to Manage Growth* (1990) 29.

housing needs have become a serious problem in Chinatown.

Basically, a sufficient housing supply could be considered as a sign of stability in a community. But a sense of community is not only based on the quality of its housing supply but also its public realm. A public realm can unite a community as a whole. However, today's physical environment in Chinatown has fail to support a strong sense of community. The community has no pedestrian mall, a obvious lack of green space and no centrally-located common gathering space. There is no significant public realm that can be regarded as the center of the community. The small Gateway Park is the only outdoor recreational facility in the core area of Chinatown.

**TABLE 1.**

	Chinatown	South End	Boston
1. Population	more than 5,100	25,372	601,095
2. Household Population	5,100	23,112	551,500
3. Area(acres)	46.0	985.9	32,061
4. Density (persons/Acres)	110.9	25.7	18.75
5. Over-crowded units (in percentage)	21		
6. Open Space (acres)	0.36	29.15	-
7. Open Space per 1,000 populations	0.7	1,15	-
8. Parking Density	34	1.3	1.7
9. Parking Space (off-street)	1,573	1,271	55,000

Table 1.<sup>1</sup> shows the general comparative data on Chinatown, South End and Boston area. As can be seen, the density of Chinatown is in four times higher than that of the South End and almost five times higher than that of the Boston area. In contrast, the open space per 1,000 populations in Chinatown is relative low (0.7), compared to that of South End(1.15). Moreover, the parking density in Chinatown (34) is extremely higher than city average (1.7). This indicates that in Chinatown, the density of the populations is high, the open spaces is few and parking spaces occupy much the land.(fig.2.7) By making such comparison, one can easily note that the living environment in Chinatown is worse than that of the city as a whole.



**FIGURE 2.7** *The parking spaces occupy much the land in Chinatown.*

Meanwhile, today's Chinatown has a total of 66 family organizations, service providers, social clubs, and advocacy groups.<sup>2</sup> They are all searching to benefit the Chinese community. The activities of these social organizations contrast distinctly with the lack of public realm in Chinatown. There is no significant place that can be considered as a community center. The physical environment fails to provide a strong sense of community in Boston Chinatown.

1. BRA, *Chinatown Community Plan: A Plan to Manage Growth*.(1990) 66.

2. BRA, *Chinatown Community Plan: A Plan to Manage Growth*.(1990) 53



## 2.4 The precedent proposals

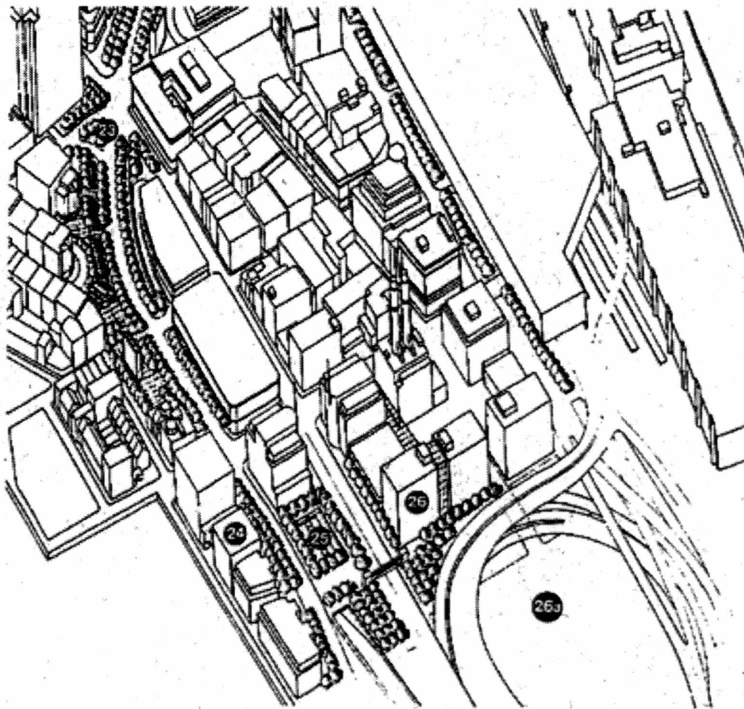
At the end of the century, Boston Chinatown is a community facing major challenges, challenges to its identity, its development and future. As located in the center of Boston, many urban planners and architects as well as the Boston Redevelopment Authority have made proposals which concerned on the renewal of Boston Chinatown. These projects include the Midtown Cultural District Plan, the new Central Artery - Third Harbor Tunnel and the Massachusetts Turnpike projects, the mega development projects bordering Chinatown. (Fig.2.8), (fig. 2.10)<sup>1</sup>



*FIGURE 2.8 show the vision of a gateway in Chinatown Gateway.*

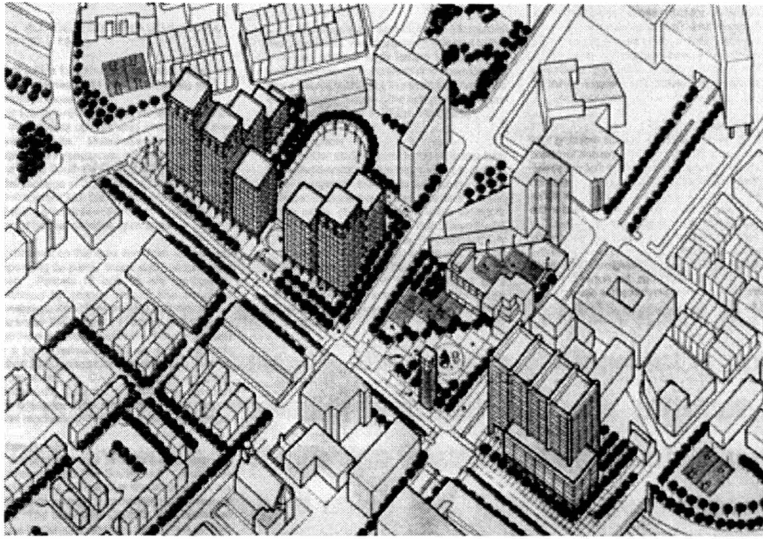
1. Comunitas, Inc. and Parsons Brinckerhoff Quade and Douglas. Air Right Study - A report Prepared for the Massachusetts Turnpike Authority. (1993) 63, 51

In 1990, the Chinatown Community Plan have published, a master plan for the future growth and expansion. It provides the framework for much needed affordable housing, expansion to the Chinatown Gateway(fig.2.9) <sup>1</sup>and Massachusetts Turnpike Air-Rights area. The main goals of the plan are 1) to respect and strengthen Chinatown as an distinct neighborhood by reviving its historic and cultural identity; 2) to revitalize the business and commercial core of Chinatown by upgrading its urban conditions; 3) to expand Chinatown with commercial activities toward the north and housing toward the south; 4) to improve the public realm and create a sense of community by increasing accessible quality open space. 5) to provide affordable housing and stabilize the residential neighborhood by establishing Chinatown Housing Improvement Program (CHIP).<sup>2</sup>



*FIGURE 2.9 show the vision of lease out parcels around Chinatown and Leather District*

1. Boston 2000, Chinatown/ Leather District community forum. (1997)
2. BRA, Chinatown Community Plan: A Plan to Manage Growth.(1990).



*FIGURE 2.10 A proposal for the Air-Rights area in Chinatown.*

## 3.0 The Solution

### 3.1 Strategy

Chinatown neighborhood as a historic immigrant foothold in the city represents part of Boston's rich neighborhood history. Yet, the existing environment is not desirable for its habitants both culturally and physically. Thus, the strategy of redesign Boston Chinatown which the cultural concern should come first. The built environment should depict the custom and life style which the people belong. While reviving the Chinese identity, the Chinese people will gain a sense of belonging; the new environment should able to enhance the value, confidence and pride of its habitants. Moreover, Boston Chinatown is the district of cultural interaction, where should provide an environment to include different cultural activities; a place where people can meet and communicate.

As located on the entrance of southern Boston and the new Central Artery, Chinatown found itself become a gateway of Boston. The strategy of the new design is to put Chinatown into the large context, which the Chinatown could become part of the city.

## 3.2 The research of Chinese design principle

In the realm of architecture and urbanism, the Chinese have enormous achievements in building their cities. Their urban environment and architectural style have remained virtually unchanged for centuries until recent times, when the need of modernization was demanded by the political and social changes. However, these new western ideas and technologies which can not respond to the consideration of cultural factors. The Chinese start to looking back their past to find the key for maintaining a Chinese character. As we discuss before, this tendency is much similar to the overseas Chinese; they are all searching for “identity”.

Because the long held philosophies and values influence most of the Chinese thought, a general understanding of the theoretical background of Chinese philosophies to the characteristics of traditional cities is essential. The *Yin-Yang* theory and the influence of Confucianism and Taoism are regarded as the most significant factors that shaped the built environment.

Confucianism and Taoism are the two most important philosophies that have been affecting the Chinese ways of living and thinking for the past 2,500 years. These two philosophies have not only participated in the daily life of the Chinese people but also in their architecture and built environment.

Confucianism and Taoism are opposite ways of thinking. Confucianism emphasizes on a specific set of social norms and ethic principles which dictate the

hierarchical order of city planning; Taoism focuses on the individual character, in which humanity and the perception of natures embodied. These two principles manifest themselves in different physical forms in the field of planning and architecture, from a small unit to a large scale.

However, they both adopted the principles of *Yin-Yang* (the theory of negative and positive forces)<sup>1</sup> as the basic guidelines in developing their philosophical ideas in the planning of human settlements.

The art of *Yin-Yang* is deeply rooted in the Chinese culture. The notion came from *Yijing (Books of Changes)*, which is regard as one of the earliest classics in Chinese literature.<sup>2</sup> The word *yi* means the fluidity of all situations, and the interaction between negative and positive qualities of all nature things. The application of the *Yin-Yang* theory is identifiable in many fields of Chinese thinking. the theory of *Yin* and *Yang* stands symbolized and contrasted, representing the principle of polarity and the field of sexual expression. *Yin* is identified with nurturing earth, darkness and coldness; *Yang* is associated with the life giving power of heaven which generates light and warmth. *Yin* and *Yang* symbolizes everything which is mutually opposite, and which is reciprocally completed in the eternal rhythm of life and season. Thus, all being of the universe comes from the composition of *Yin* and *Yang*.<sup>3</sup>

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1. Evelyn Lip. *Feng Shui: Environment of Power: a study of Chinese architecture*. London: Academy Editions. (1995) 23.

2. Evelyn Lip. 24.

3. Peng, Tso Chih George, "The Application of Chinese Philosophies in the Design of Architecture, Landscape and Cities, Berlin: "Archur" 54. (1983) 109.

Moreover, in traditional architecture, the idea of *Yin-Yang* is expressed with dual characteristic. Masculine qualities are *Yang* and feminine qualities are *Yin*. Therefore, build-up areas, sun-lit roofs, eminent structures and front elevations are *Yang*; and is believed that when the forces of *Yin* and *Yang* are combined harmoniously there will be balance in which positive productivity and success are procured.<sup>1</sup>

The philosopher Confucius (550-478 BC) systematized earlier rites and odes into a moral ordinance of behavior, and this has remained a foundation for future Chinese thinking. Throughout his life, Confucius had taught a social and ethical norm based on the main theme of humanity, benevolence, perfect virtue and faith.<sup>2</sup>

Humanism was the central issue in the Confucianism which considers human being is the center of the world. It is very different from the western culture which has always emphasized the relationship between man and god.

Architecturally, Humanism plays a substantial role in the built environment which maintains that man is the main consideration in the universe. To describe Chinese architecture, it is an environment in which people can live, see and play. The significance of this notion is to describe how the environment is constructed for man.

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1. Evelyn Lip.42

2. Geoffrey and Susan Jellicoe. The Landscape of Man. New York: Thames and Hudson. (1975). 68.

In addition, Confucianism had provided an important guidelines for the political, ethical and moral order in the feudal society. The establishment of the hierarchical norm and ordinance became a strong influence in Chinese thinking. Inevitably, this notion of hierarchical social order had transformed into the design principle for Chinese town planning and architecture.

Parallel to Confucianism is the more mystical Taoism which was founded by Lao Zi, a philosopher born in 604 BC in Henan. He taught people to follow the Laws of Nature. His fundamental doctrines were recorded in the *Dao Dejing* (a Book on the Nature of Earth).<sup>1</sup> Tao means “the way”: all men live, work and die within the laws of nature, dominated by the universe. Lao Zi had promoted the dialectical prospect into a widespread notion of thoughts which became the most practicable idea of Chinese metaphysics.

Taoism emphasizes the individual rather than the community, and focuses on the harmony of inner world rather than outward rule-keeping. As we had discussed before, Confucianism presents the hierarchical social order, conversely, Taoism accentuates the idea of individuality as well as the relationship between man and nature. Therefore, these ideas have influenced scholars who search for a balance between social norms and individuality.

In short, these two philosophies have incorporated the *Yin-Yang* theory into themselves and are crys-

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1. Evelyn Lip.44



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tallized in the way of built environment. The central ideas of Confucian philosophy are formality and regularity, which could be regarded as “*Yang*”, indicating the man-made element. The main concept of *Lao Zi*'s philosophy is informality and irregularity, which is “*Yin*”, relating to the natural phenomena.<sup>1</sup> This duality of opposite philosophies is well expressed in the town planning and architecture.

The *Feng-Shui* theory derived from the Chinese philosophies, which is regarded as the basic principles of ancient Chinese cosmology; in which, the relationship between man and nature comes first. The *Feng-Shui* theory was originated from the *Yin-Yang* principle, which believes that the construction of a site should be in harmony with its natural setting. *Feng-Shui* is an organizing device for the built environment. It is a traditional architectural theory for searching suitable sites for buildings, dwellings and cities. Thus, *Feng-Shui* is regarded as a formal and ideological approach to architecture and urbanism.<sup>2</sup>

The term *Feng* means “wind” or “calming of the wind”; it symbolizes the whole of nature which is “above the earth”. *Shui* means “water” or “acquiring the water”; it symbolizes that part of nature which is “under the earth”.<sup>3</sup> There are many approaches to interpret *Feng-Shui* in the field of architecture and city planning. The primary principles are the juxtaposition of intuition and analysis. The former speculates on its metaphysical implications, while

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1. Peng, Tso Chih George.111.

2. Peng, Tso Chih George.101.

3. Peng, Tso Chih George.101.

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the latter judges the physical configuration of environment. *Feng-Shui* manifestation of Confucianism and Taoism as well as the *Yin-Yang* theory. The application of *Feng-Shui* theory in practice is a complicated process, we will not discuss it in detail here. However it is essential to investigate some examples.

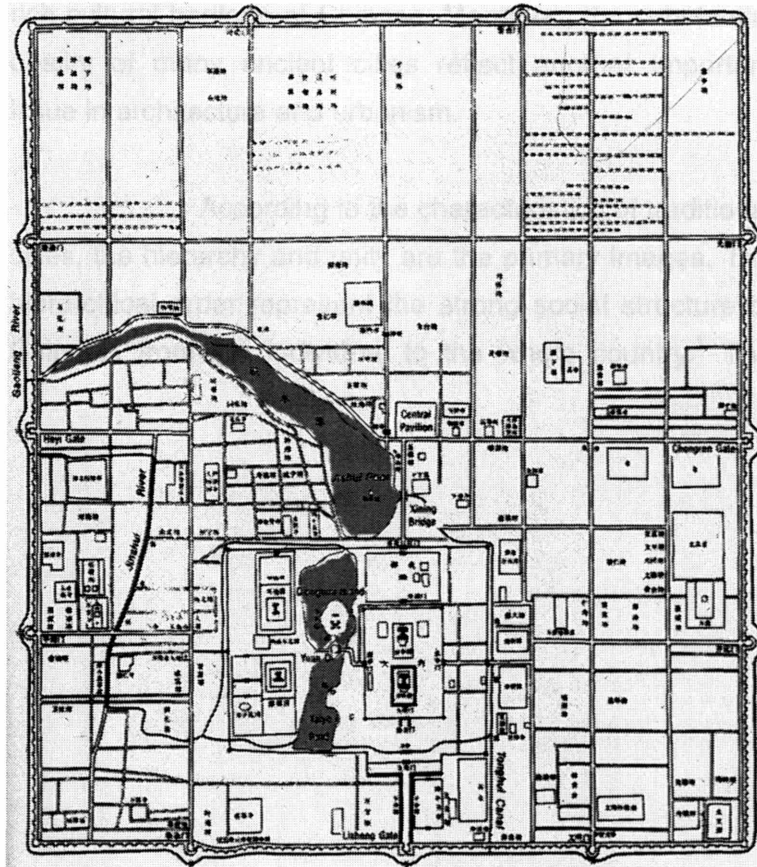
To the Chinese, when they build their houses or cities, serious consideration is given to the location of site and the relationship of form and structure. The first thing was to investigate the topographical and geological conditions, such as the course of a stream, the orientation of the wind, the configuration of the mountain as well as the location of existing structures surrounded.<sup>1</sup> Then, the form of the houses or cities shall accommodate these factors in order to achieve the aesthetic, symbolic and functional relationships. Thus, any element placed in the landscape by man must harmonize perfectly with the natural environment.<sup>2</sup> For example, the walled city of Beijing is composed of a regular and geometrical order, along with a symmetrical north-south axis in its city planning. In order to

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1. Peng, Tso Chih George.112.

2. Peng, Tso Chih George.112.

balance this formal arrangement, an irregular layout of artificial lakes and parks was created.(fig.3.1)<sup>1</sup>



**FIGURE 3.1** An irregular layout of artificial lakes contract with the formal organization of city. (The Zhou Capital in Kao Gong)

In short, *Feng-Shui* as an old Chinese design principle deals with the relationship between the man-made and the natural environment. In contemporary terms, it can be a science of ecology and a method of environment control. *Feng-Shui* theory can be an useful tool in the field of architecture and urban design.<sup>2</sup>

1. Steinhardt, Nancy Shatzman, *Chinese Imperial City Planning*. Honolulu: University of Hawaii press, (1990) 34
2. Evelyn Lip.50

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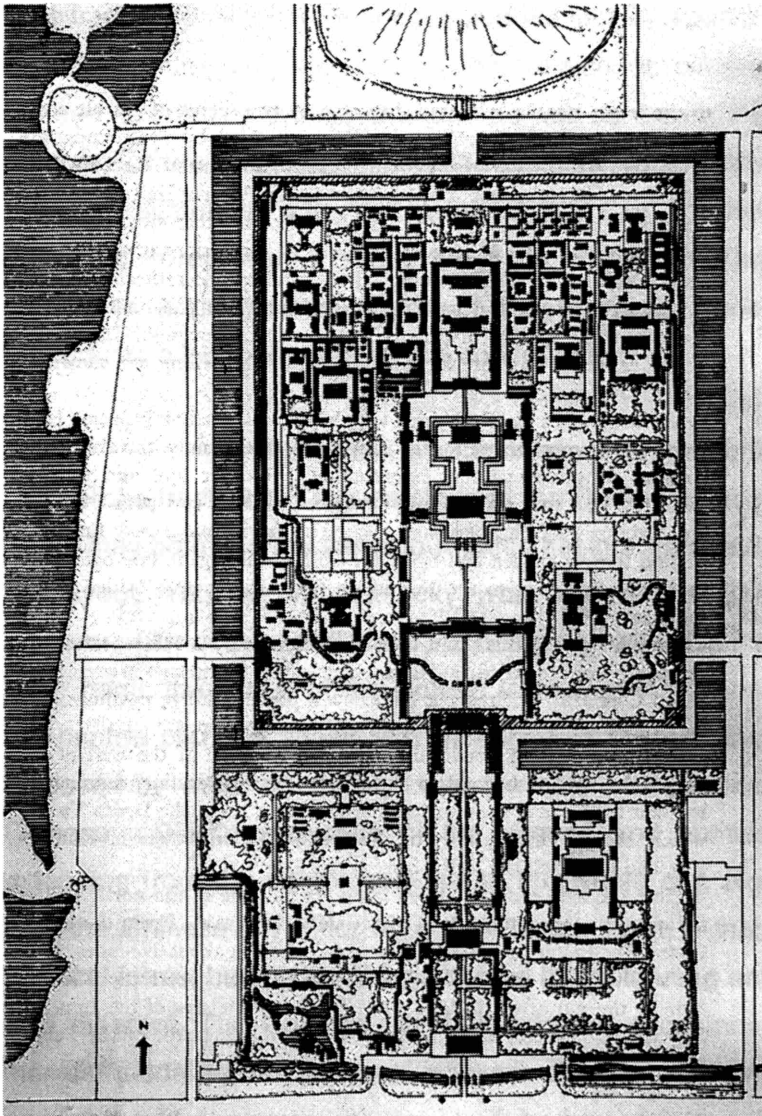
Beside the philosophical point of view, the characteristics of Chinese traditional cities present the most rich cultural heritage of Chinese. Moreover, the substantial quality of many ancient cities reflect another important issue in architecture and urbanism.

According to the characteristics of traditional cities, the hierarchy and unity are the primary images. The hierarchical order represent the strong social structure of Chinese, from the individual to the whole country.<sup>1</sup> The

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1. Kevin Lynch. Good City Form. Cambridge: MIT Press (1981).13

images of hierarchy and unity are presented by the symbolism of center, orientation and axuality.(fig.3.2)



**FIGURE 3.2** *The Plan of Beijing city show the strong image of hierarchy.*

In the traditional cities, which space is symbolized as a series of geometrical order. Heaven is round and Earth is square in which the center embodies the secular authority.<sup>1</sup> The imperial palaces were always situated in

1. Geoffrey and Susan Jellicoe. 81

the center of the cities. The emperor was regarded as the son of Heaven and the mediator between man and Heaven. "The imperial palaces were constructed not just for dwelling or administrating the affairs of a nation but also for reinforcing and conforming the supernatural as well as the earthly authority of the emperor."<sup>1</sup> Thus, the palaces were established in symmetry with four gates at the four cardinal points which represent the four directions to Heaven. This introduces a geometrical image of the universe, transformed into a basic order of spatial configuration.

In some sense, we might consider the similarity of the traditional Chinese city and the Roman town in which they both had the same four gates set in a geometrical layout. Yet, the Chinese city was centered by the emperor, ruler of the world and pivot of the universe. On the other hand, the center of the Roman town was the forum, the central plaza, a space that belonged to the citizens. Enclosed by walls, "inner city" was the core of traditional Chinese city with sequence of the spaces and entities extending from the center outward to the whole city. Not only the Chinese city differ from the Roman town in their physical forms, but the meanings behind their planning are also different. The Chinese city had adopted a cosmological model to derive forms, whereas the Roman town used the rule of simple, regular block and lot division, to expand easily.<sup>2</sup>

The most significant element in the Chinese city form was the sense of orientation and axis. For the Chi-

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1. Evelyn Lip.52

2. Kevin Lynch. 82

nese, north meant severe winters and barbarian invasions; south meant warmth, and the direction of sun. Therefore, all palaces, public and private buildings, opened to the south. Furthermore, in order to reinforce the hierarchical organization, a north-south axis was employed. Hence, the city was symmetrically separated into left and right and a sense of orientation became clearly defined.

Many Baroque cities in Europe had similar characteristics as the Chinese city such as axis and vista avenues. It is essential to compare the differences between them. The Baroque city was “designed to impress by the prospect it afforded of a distant architectural feature of central importance, the Chinese professional way of symbolic rather than visual significance.”<sup>1</sup> In fact, the central axis in Chinese city expressed its symbolic meaning by the change in colors, the organizations of architectural settings, and variation of scale. The central axis implied the secular authority as well as the representation of Heaven.<sup>2</sup>

It could easily be found in any Chinese city, the certain districts are always named with orientation. For instance, in Beijing or Taipei, you can find east market and west market or north gate and south gate, and everyone can easily orient themselves anywhere in the city.

To summarize the Chinese city as a cosmo-magical symbol, the notable urban designer Kevin Lynch described the concepts, which he said “the regular grid for establishing a pervasive order; the device of organi-

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1. Wright. “The Ancient Chinese City as a Cosmo-magical Symbol”. *The Cosmology of the Chinese City*. (1983). 425.

2. Edmund N. Bacon. *Design of Cities*. Cambridge: MIT press (1969). 249

zation by hierarchy; bilateral symmetry as an strategic points as a way of visibly controlling large territories; the scared nature of mountains, caves, and water,”<sup>1</sup>. He pointed out that the essential values are order, stability, dominance, and balance between action and form.

Some of these design principles may be considered as outdated today, however, we are still affected by these devices of rite and form. The power of the empire, the norms of traditional order might be changed. Yet, the physical environment, with different meaning, still expresses their importance in today’s urban condition. When faced with the post- modern phenomena, psychological and cultural problems have become critical. Therefore, it is important for us to investigate these design elements in the traditional cities for modern applications.

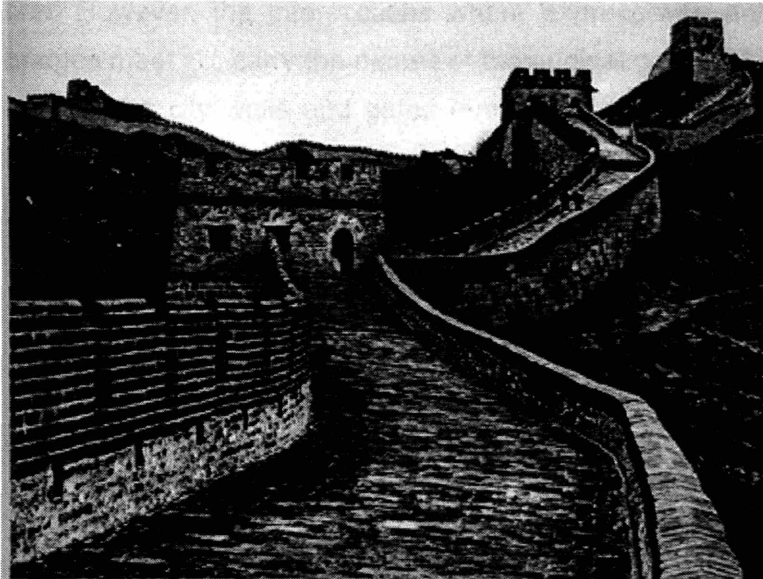
From the “Great Wall”(fig.3.3) in the northern border of China to the walls of a small family, the wall represent an important character in Chinese landscape. The wall was the first component of traditional Chinese city. For the Chinese, the words for “city” and “wall” are the same character, the word of “cheng” which means “forming the earth”. The purpose of wall construction was not only to prevent the invasion of enemy but also to build up a boundary. In fact, in traditional city, both the city and the internal parts of a city were walled. In Beijing, the Forbidden City was walled and enclosed within the “inner city” and the palaces of the emperor were walled again within the Forbidden City. Every important temple, building or even a house was walled enclosure. The significance of the walled enclosure could

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1. Kevin Lynch. 79



be detected through the various levels of hierarchical order of the city.



*FIGURE 3.3 The “Great Wall” of China.*

The gate, when compared to the wall as the boundary, became the symbolic point or node of the city. Yet, it is still related to the concept of boundary since passing through the “gate” indicates moving from one territory to another. In traditional cities the names of the gates were always incorporated with the cosmological meaning and orientation. For instance, in Beijing, you could find “Heaven Peace Gate”, “Earth Peace Gate”, “East Straight Gate” and “West Straight Gate”. The symbolic meaning of the gates was sometimes more important than their physical forms. The meaning of the gates became part of the city’s image and identities. Especially, after the end of the feudal system, many of the city’s walls and the gates no longer retained their original functions; in many cases they were torn down or transformed to accommodate new uses. In

Beijing, city walls and gates were torn down for the construction of express-way in order to relieve traffic congestion. However, the intersections where express-way and bridges meet still carry the names of the original gates. The demolished city walls and gates remained as part of the memory of the city image.



*FIGURE 3.4 The traditional street and courtyard houses.*

The street - the public domain as well as courtyard - the private domain, are the two fundamental components of the traditional Chinese city.

### 3.3 The design process

- Site Analysis



FIGURE 3.31 Context Diagram of city scale



FIGURE 3.32 The aerial view of site

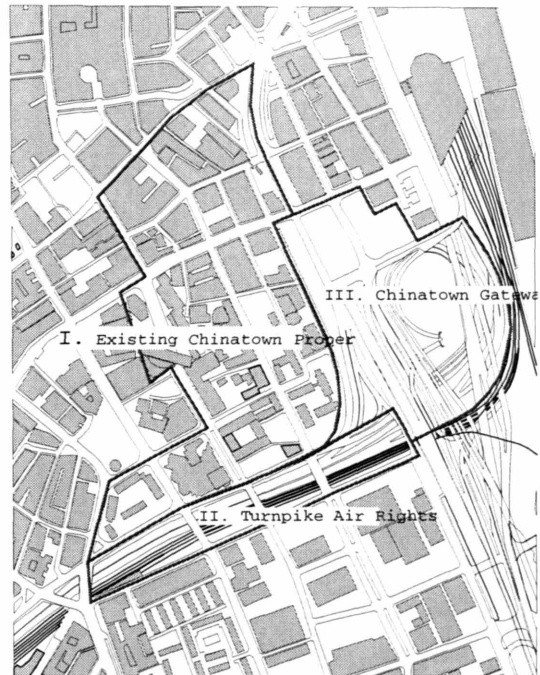


FIGURE 3.33 The existing Institutional Campus

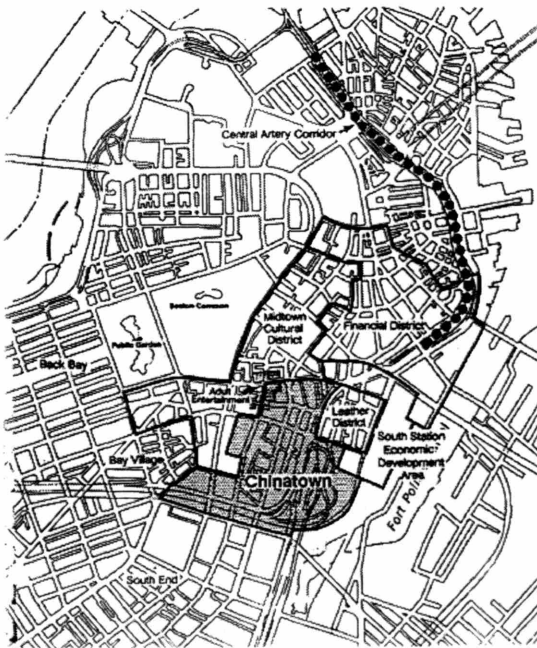


FIGURE 3.34 The site context of the city scale

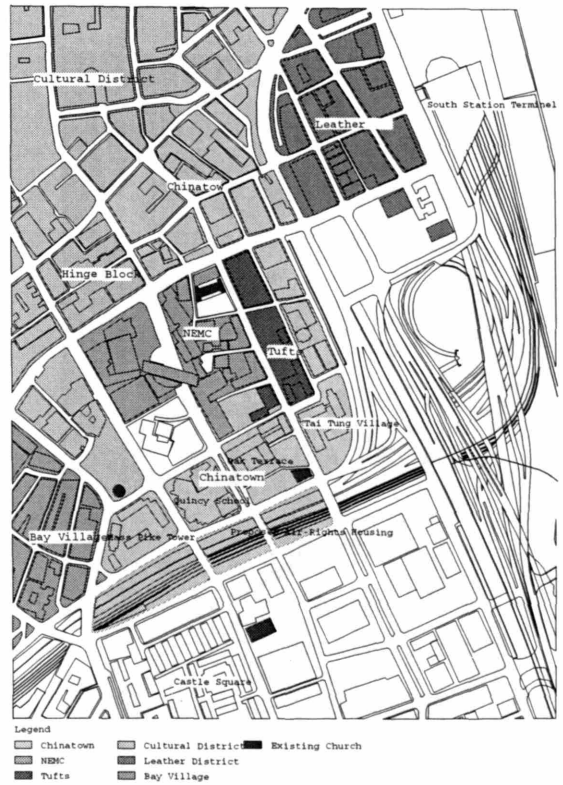


FIGURE 3.35 The context of the site



FIGURE 3.36 The land use subdistrict

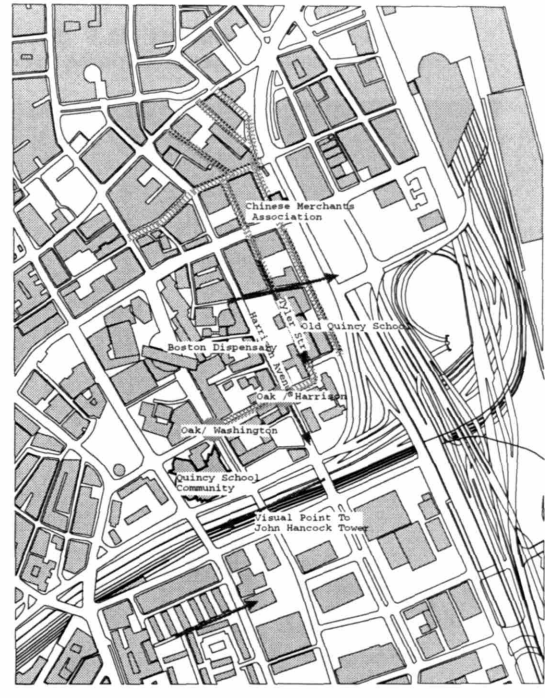


FIGURE 3.37 site analysis  
 — Historic Path & Buildings  
 → Important Visual Corridors  
 ● Important Intersection



FIGURE 3.38 site analysis of building uses.

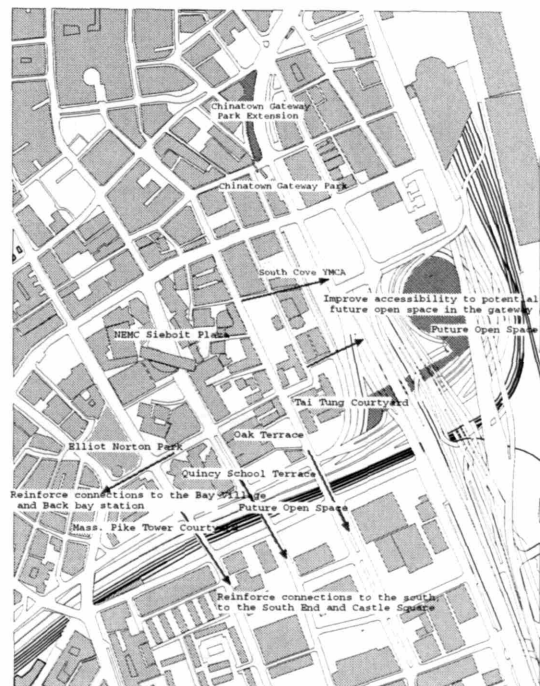


FIGURE 3.39 site analysis of open space and connection  
 ■ Future Open Space  
 ■ Existing Open Space  
 → Future Connection

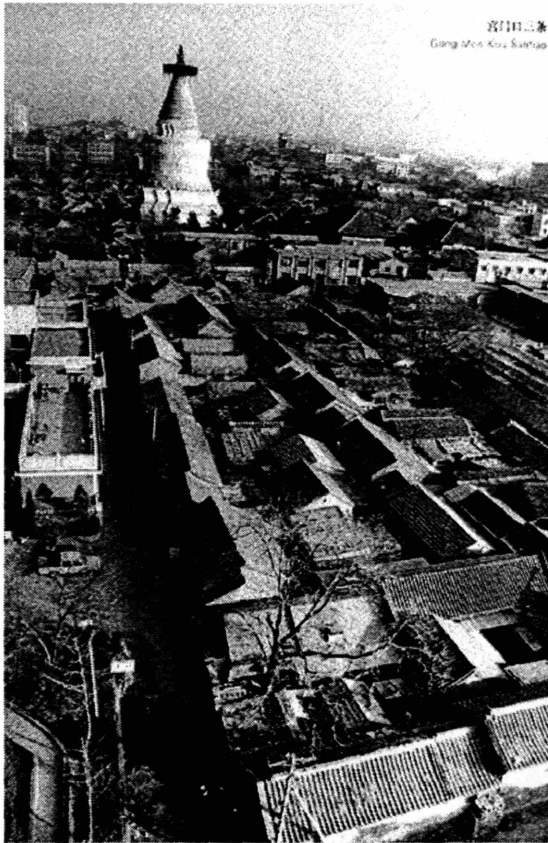


- Design Development

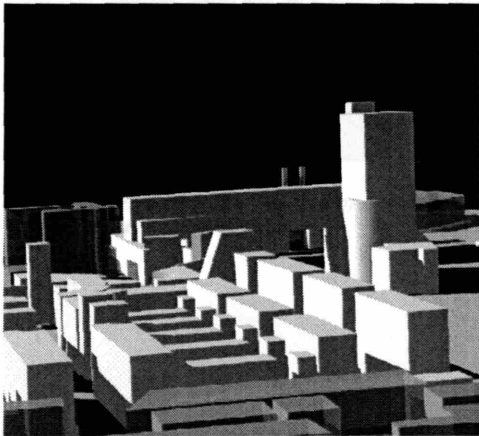
*FIGURE 3.310 Yin-Yang theory -the interaction between positive and negative forces within the site.*



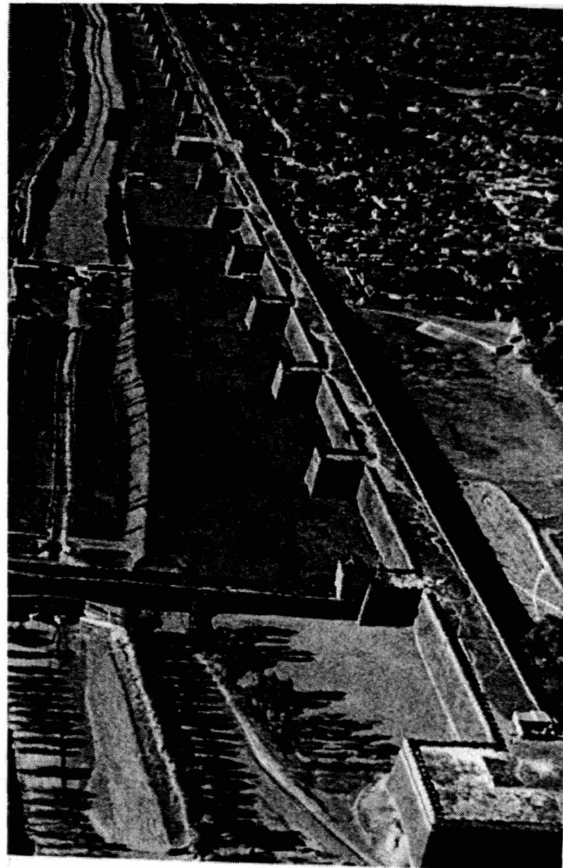
## Mapping the images



**FIGURE 3.312** Architectural setting represent the relationship between man and Heaven.



**FIGURE 3.311** Vertical element symbolize the orientation of the space.



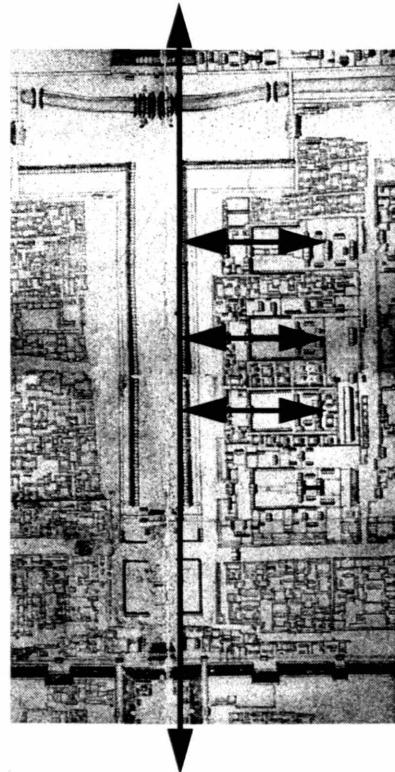
**FIGURE 3.313** Wall create the boundary for human inhabitant environment



*FIGURE 3.314 The creation of orders and streetscape are the formation of central space.*

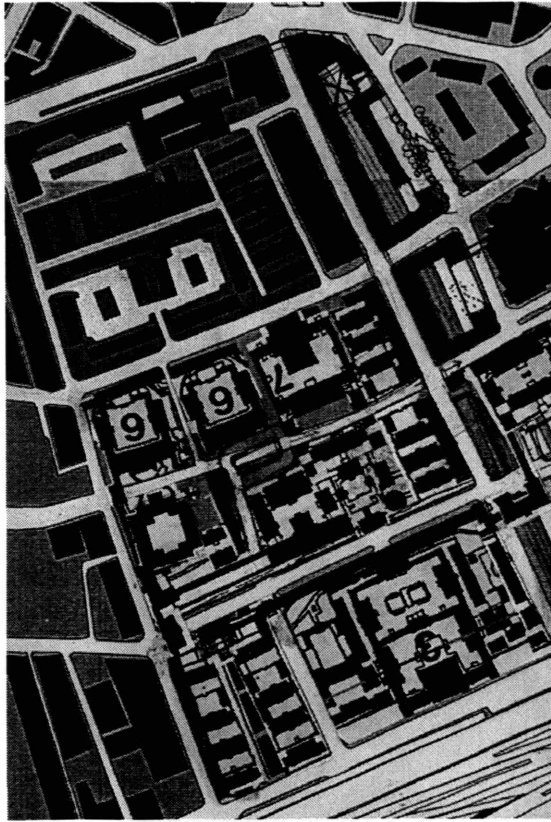


*FIGURE 3.315 The organization of space began with the definition of two axes.*



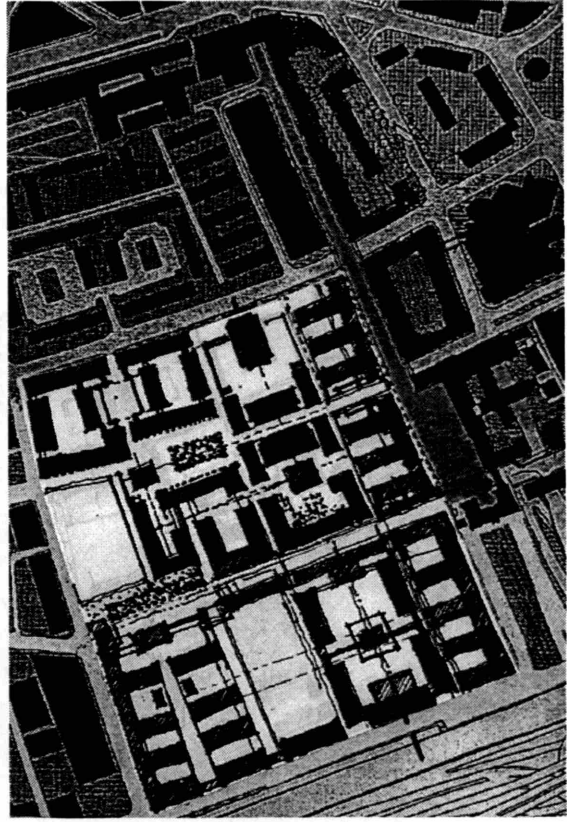
*FIGURE 3.316 The plan of Beijing exhibits in the spatial organization*





**Superimposition**

*FIGURE 3.317 A traditional complex collage into the site.*

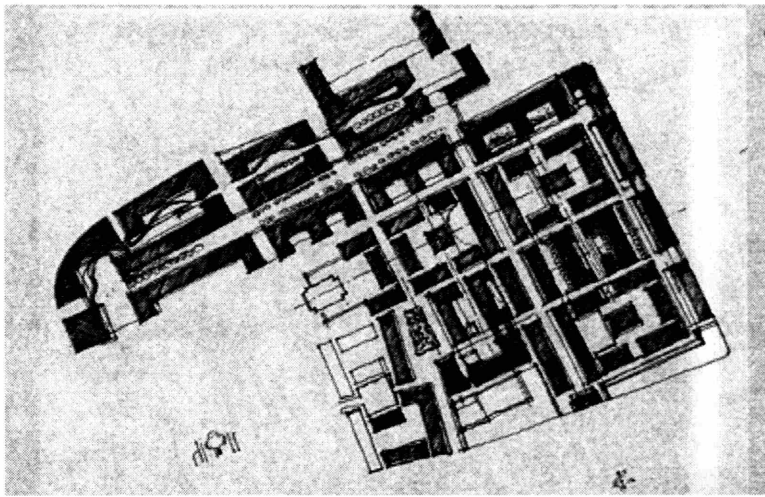


**Transparency**

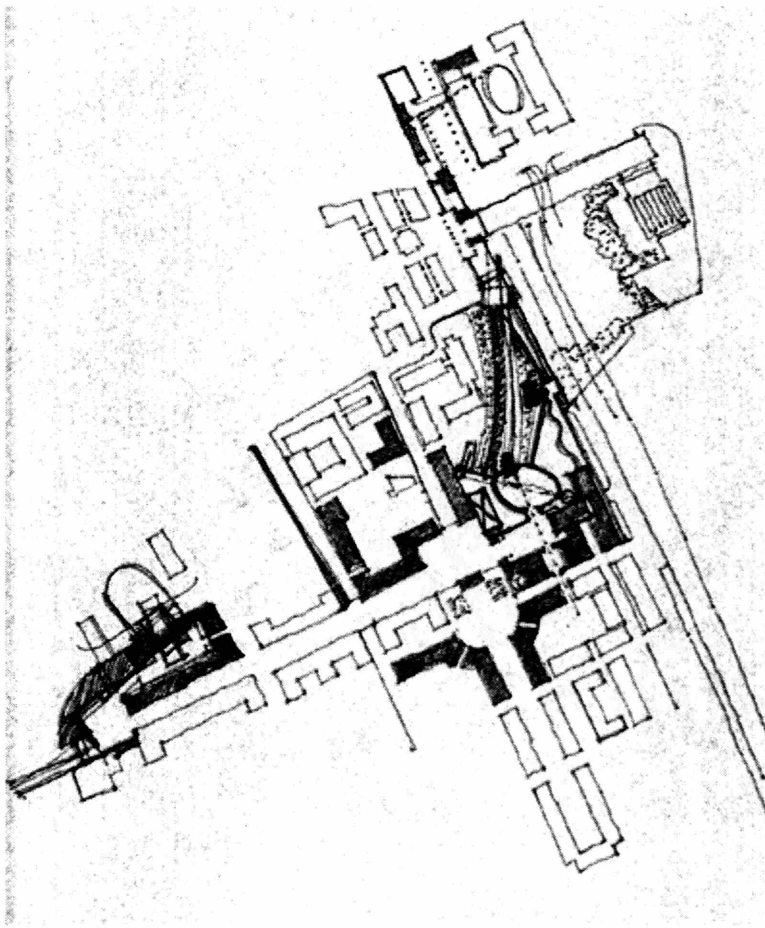
*FIGURE 3.318 Multiple - reading, the urban context and traditional Chinese spatial organization.*



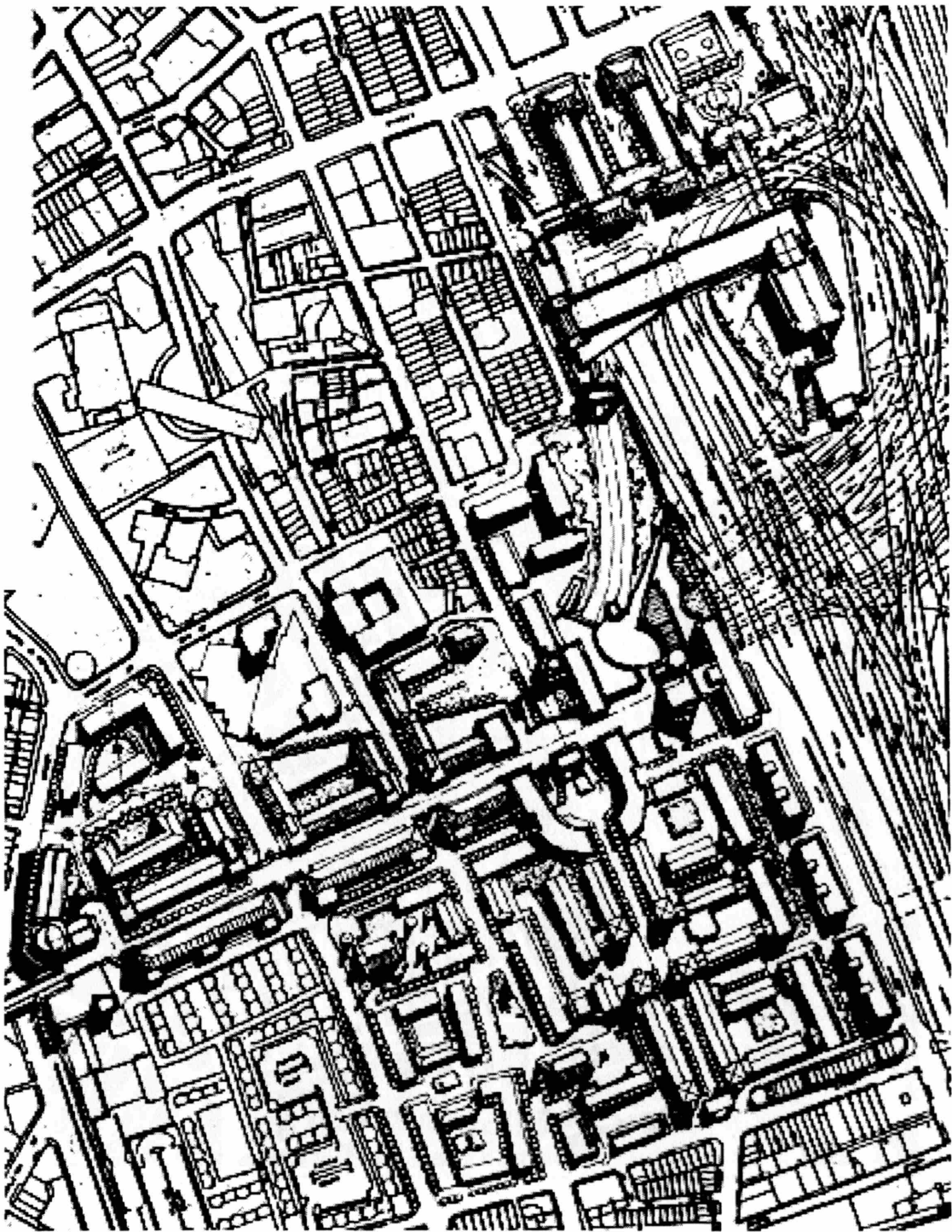
*FIGURE 3.319 The figure-ground study*



**FIGURE 3.320** *The making of streets and communal space*



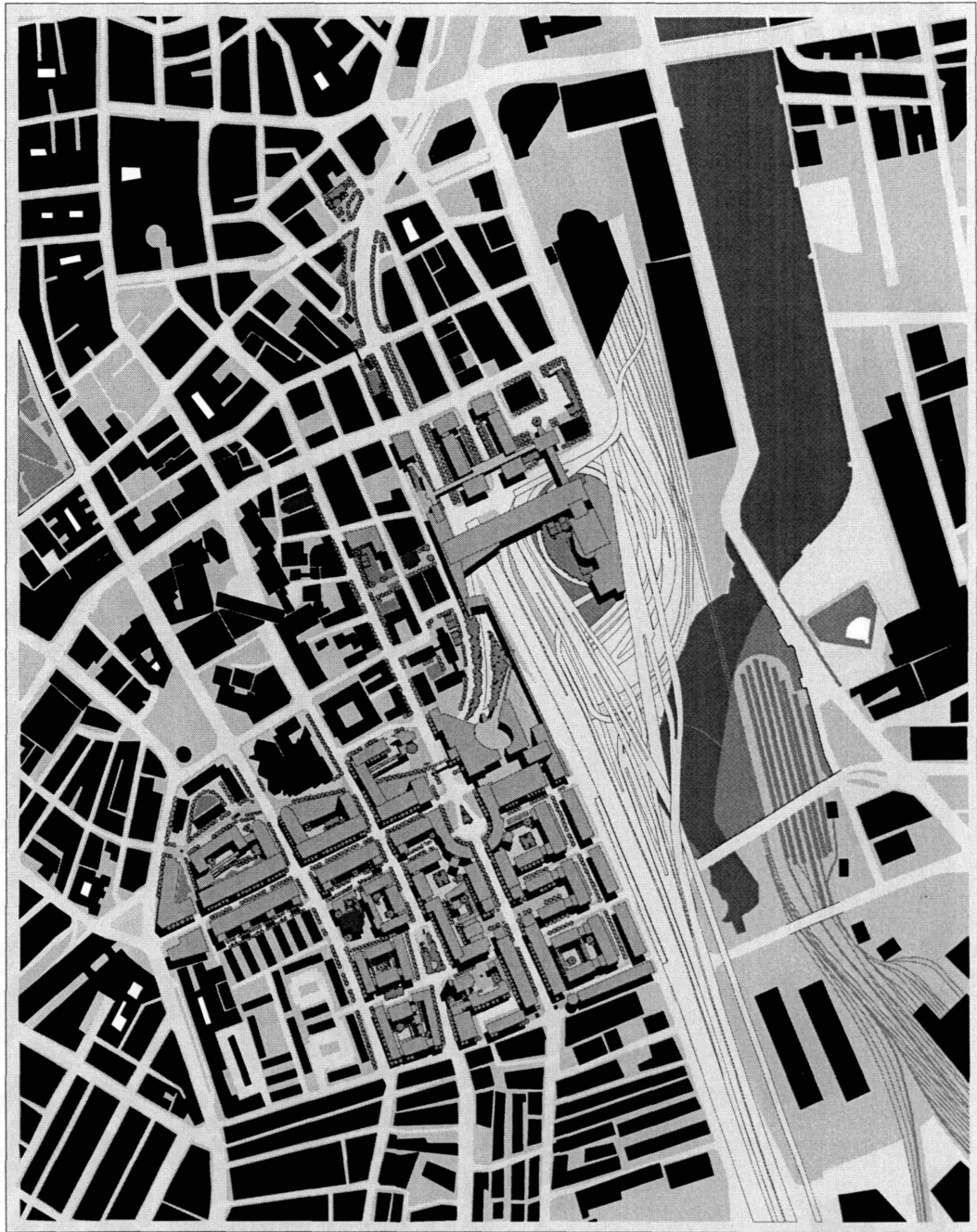
**FIGURE 3.321** *The mediator—the climax of the spatial drama—“Circle Square”—a place for the communication.*



*FIGURE 3.322 The sketch for the final design*



## 4.0 The Vision for Boston Chinatown



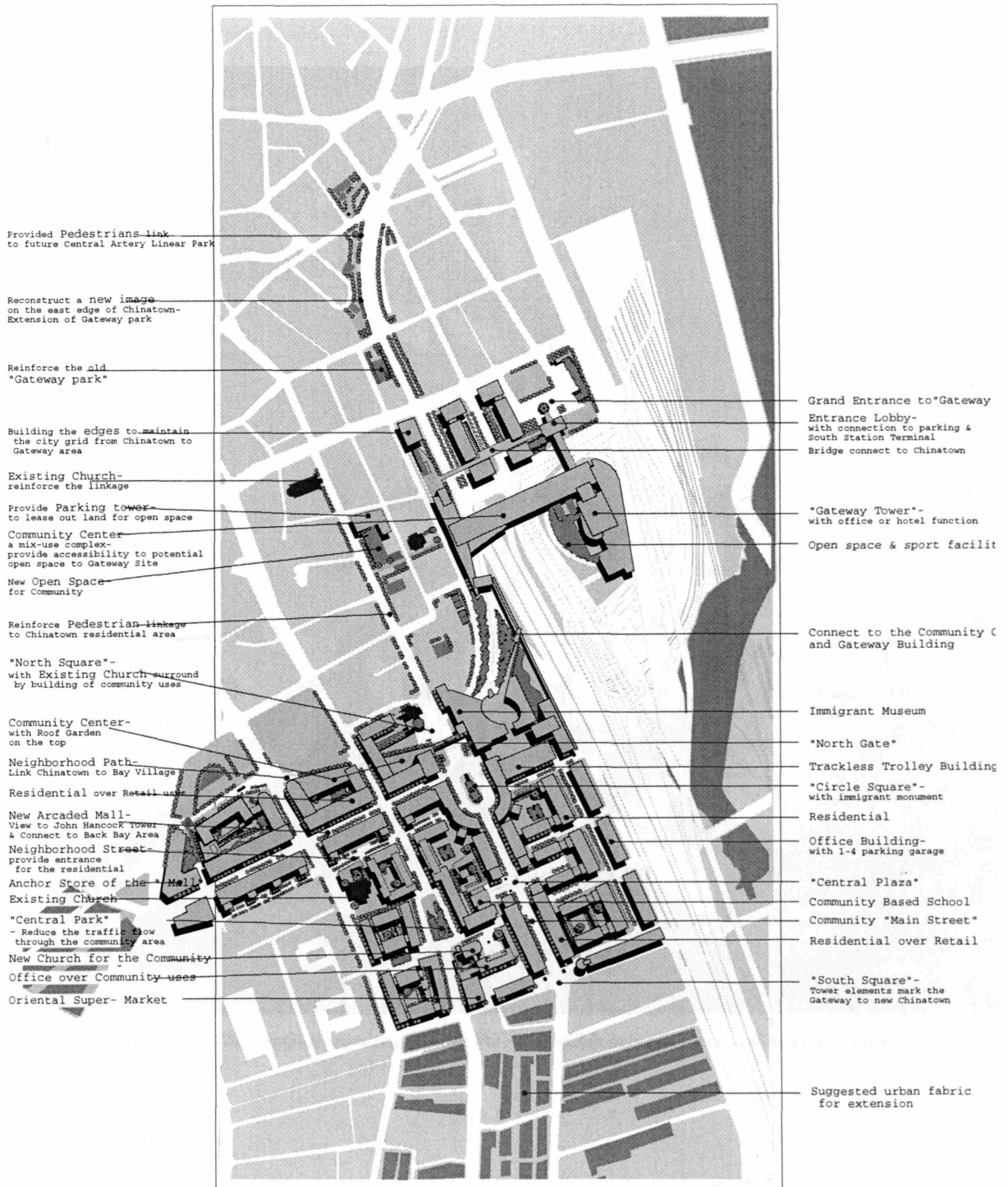
Master Plan





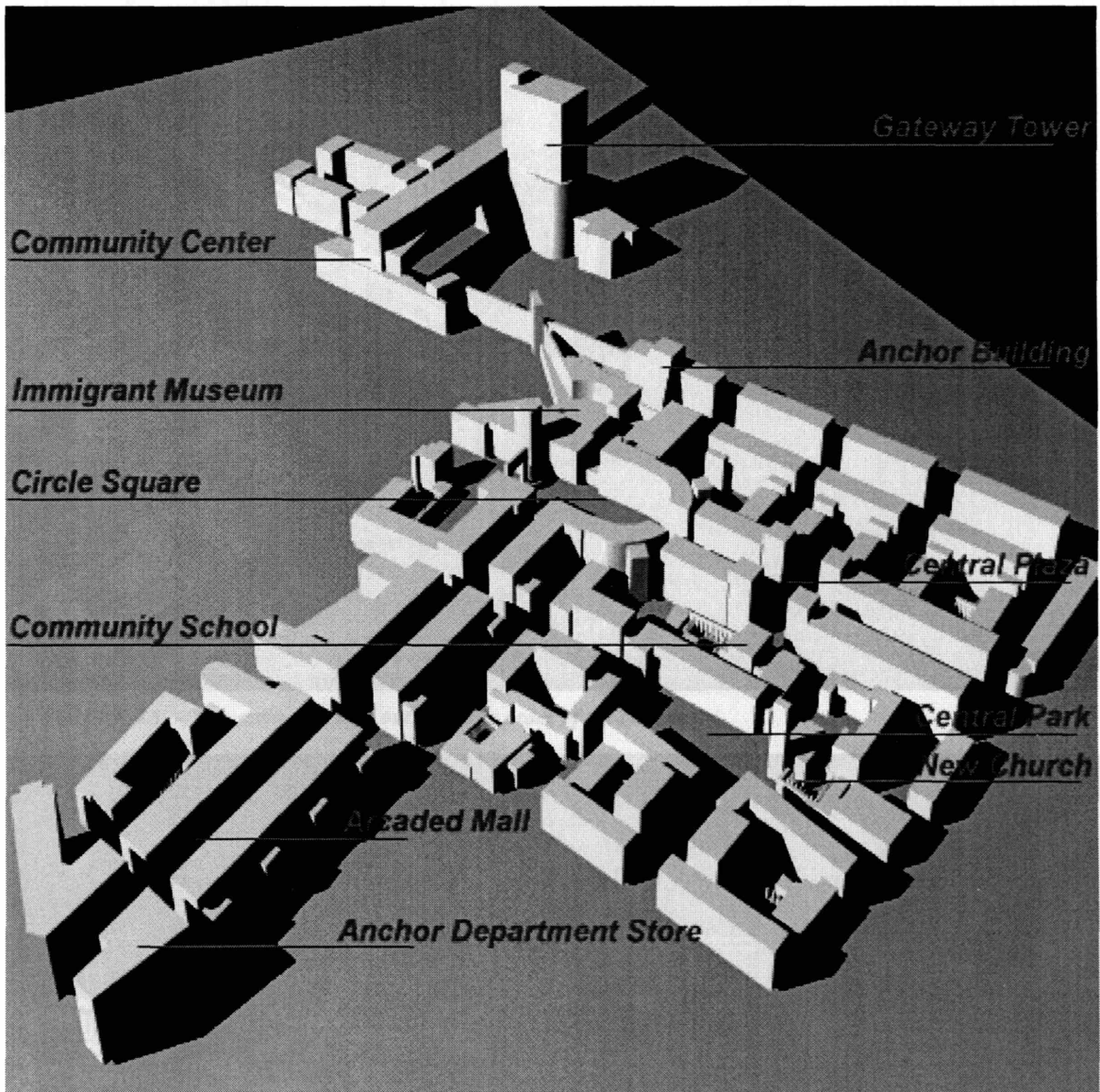
Urban Nolli Plan





Plan Of Uses And Communications



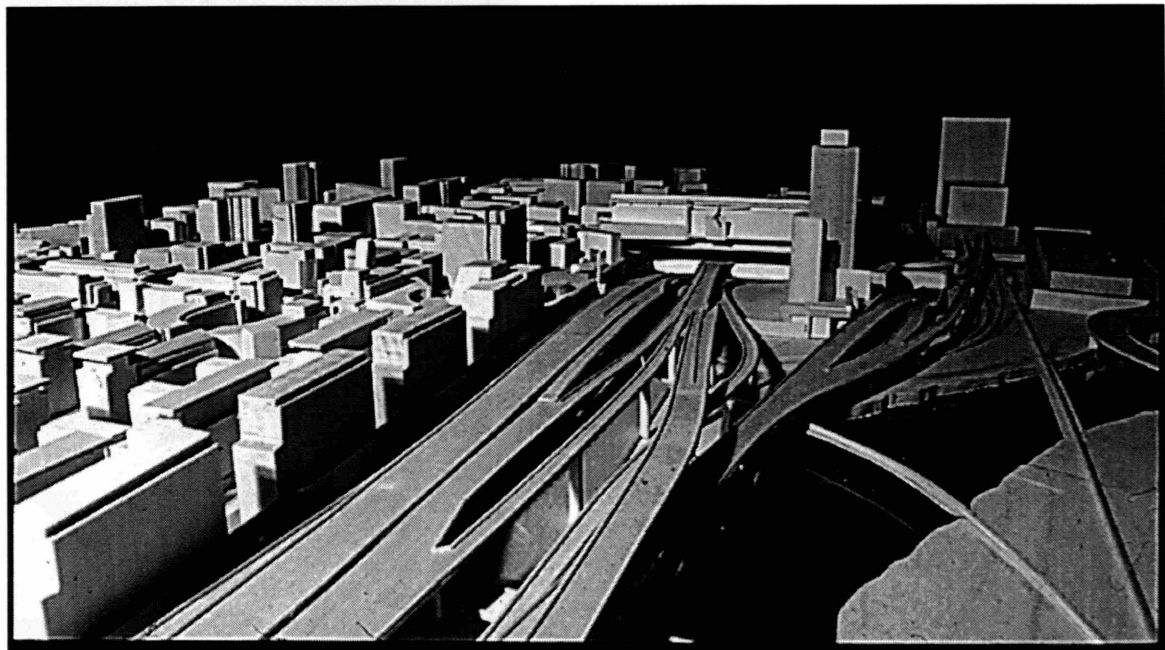


**FIGURE 4.4** This computer rendering shows the relationship between space and mass. (computer rendering)





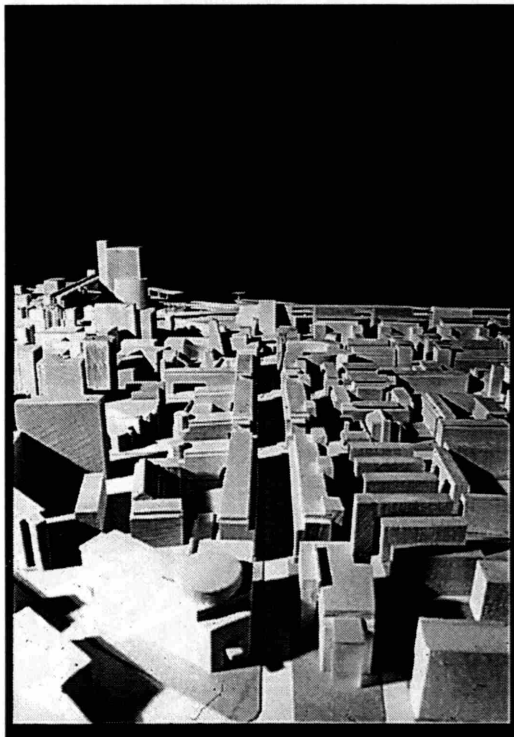
*FIGURE 4.5 Two main axes lays out the basic order of the complex.*



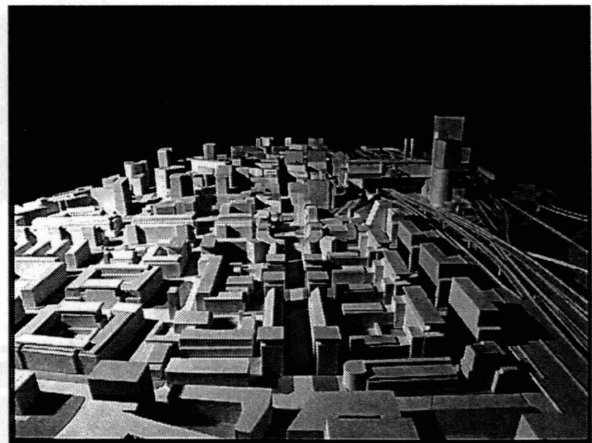
*FIGURE 4.6 The edge of the city.*



**FIGURE 4.7** A symbolic “Gateway” for the southern entrance of Boston.

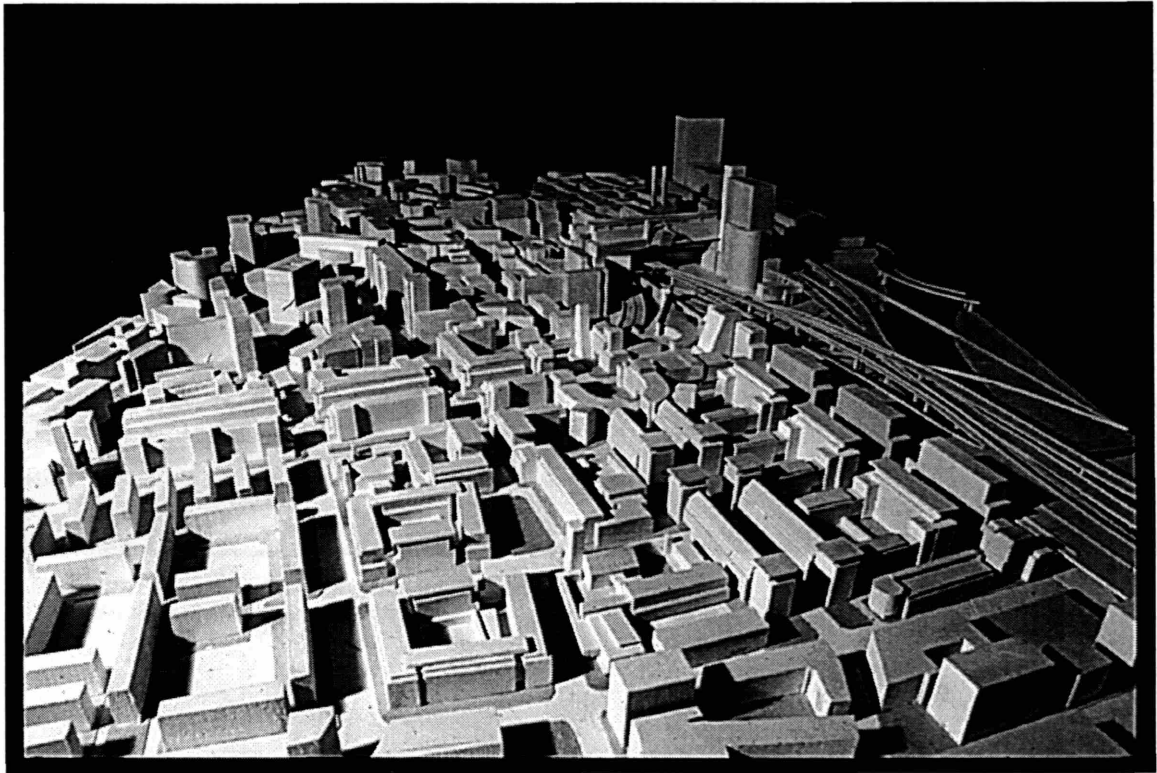


**FIGURE 4.8** The “mall” links the Chinatown to the rest of the city.

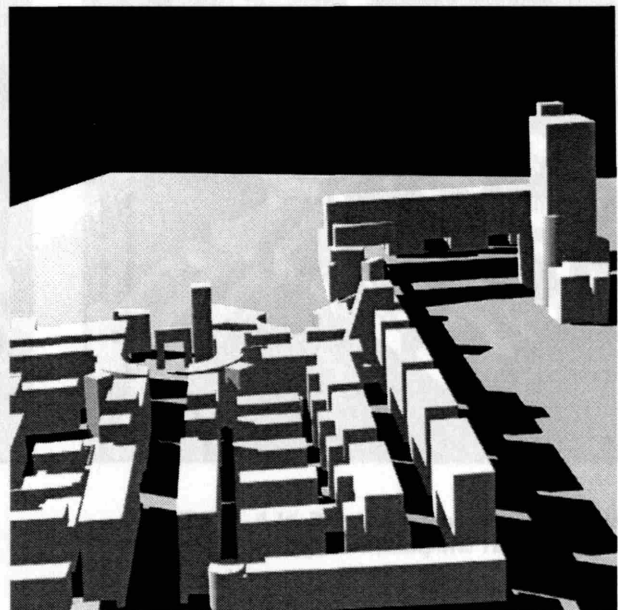
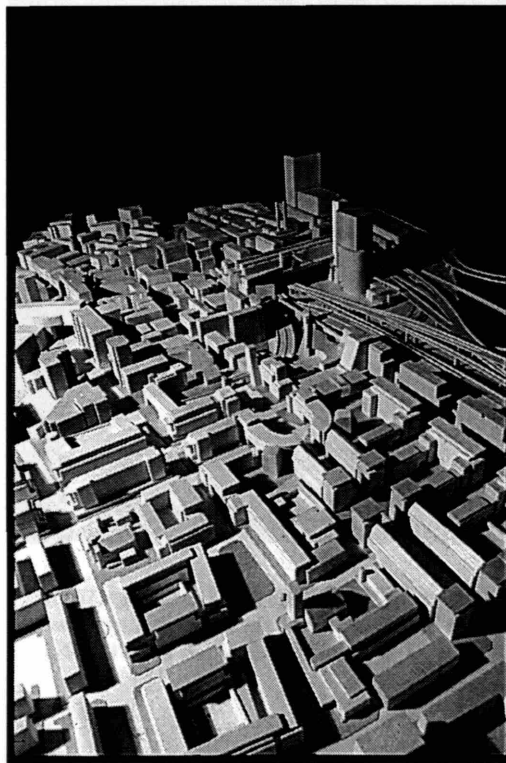


**FIGURE 4.9** The “streets” connect the old and new Chinatown.

**FIGURE 4.10** The formation of the public space: the Squares and Gates



**FIGURE 4.10** *The courtyard is the basic organizing element for the residential area.*



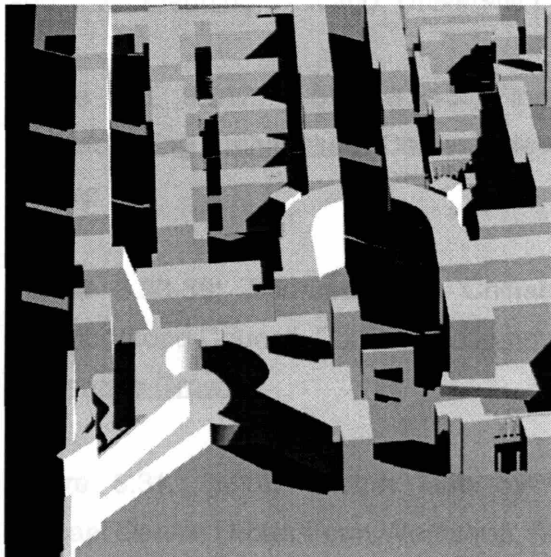
**FIGURE 4.11,12** *The formation of the public realm - Streets, Squares and Gates.*



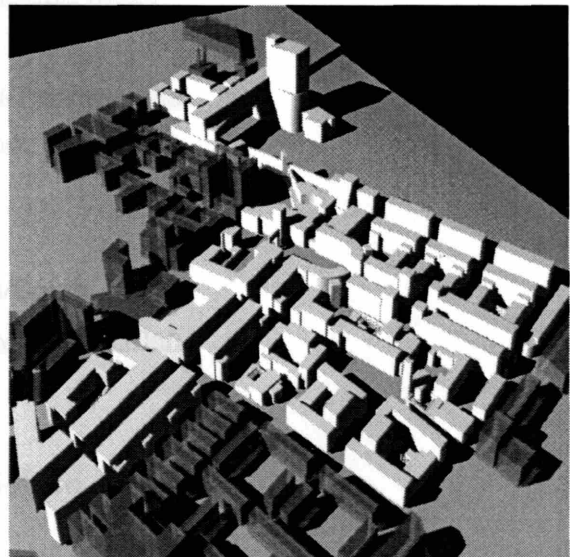
*FIGURE* The vertical element, "Gateway Tower", provides the orientation for the district.



*FIGURE 4.14* the new infill continues the existing urban fabric of the Leather district.



*FIGURE 4.15* "Circle Square" and the immigrant museum are the "mediators" of the urban setting.



*FIGURE 4.16* The new intervention respects the existing urban fabric. (computer rendering)

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## Figure Credits

Figure 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7: Rotch Library Visual Collections.

Figure 2.8, 2.10: Comunitas, Inc. and Parsons Brinckerhoff Quade and Douglas. Air Right Study - A report Prepared for the Massachusetts Turnpike Authority.

Figure 2.9: Boston 2000, Chinatown/ Leather District community forum.

Figure 3.1: Steinhardt, Nancy Shatzman, Chinese Imperial City Planning. Honolulu: University of Hawaii press.

Figure 3.2, 3.4, 3.316: Boyd, Andrew. Chinese Architecture and Town Planning, Chicago: University of Chicago Press.

Figure 3.3, 3.312, 3.311, 3.313: Pirazzoli-T'serstevens Michele, living Architecture: Chinese New York: Grosset & Dunlap Inc.

Figure 3.33-39: Sources from Chinatown/South Cove Neighborhood Council. Chinatown Community Plan: A Plan to Manage Growth.

Figure 3.31, 3.310: Boston Map by Wai-Kuen Chan, Michael Dennis Urban Form Workshop, MIT

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